Impact of Advance Technologies Over Reviving Companies: Post Covid

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Abstract: As the entire world struggles to take action against the COVID-19 virus, which has the potential to tragically harm every person's life as well as the livelihood of their professionals. More than 200 nations protect their populations by upholding fundamental standards of conduct and providing the best possible assistance to all other living things, especially frontline workers, whether directly or indirectly. Even though this widespread sickness has a negative impact on people's finances as well as their mental health. All of this is a result of businesses, both small and large, closing their doors. According to Chief Digital Officer Sanjay Srivastava, "you and I are not going to trade shows for the next 5 years," as companies try to return to normal even in this crisis, they are relying on technologies of the next generation that could significantly alter how they deliver services to their respective clients. This study focuses on how emerging technologies like Big Data, AI, IoT, & Blockchain affected all sizes of businesses in order to thrive after COVID. Additionally, this illustrates a potential case study utilising these developing technologies as well as potential difficulties.

Keywords: COVID-19, Big data, blockchain, artificial intelligence, and the internet of things are examples of digital technologies.

I. Introduction

In the year 2020, the globe and medical care have encountered unexpected difficulties. As People had to adapt to the new conditions in the actual world brought on by the pandemic, the COVID disease 2019 (COVID-19) epidemic produced a global emergency. Various firms have seen unanticipated effects from the current scenario that have benefited some while upsetting or, at the very least, marginalising others. Because of COVID-19, our reliance on innovation has fast increased, and businesses are now actively looking into this cutting-edge development. The goal of developing new approaches should be to maximise efficacy while minimising risk. Having a sound system in place is crucial when getting new developments.

Given that advanced change is ultimately about people, this relationship will necessitate more efforts to adapt present management techniques. To be effective and ready for the future, the system needs to be built on people and innovation. Therefore, COVID-19 has served as a catalyst for development and technological transformation [1].

Every association makes use of the standard developments, which occasionally help the association achieve its objectives without any issues. (1995; Brenham and Trajtenberg). Data innovation, as opposed to traditional capital venture, is the greatest way to describe broadly useful invention. According to Wulong Gu and Surendra Gera (September 2004), the major factors in association that contribute to the development of association include investing in new technologies, people, immaterial pursuits, and knowledge transmission. Human resource management is said to develop talented and motivated employees who can communicate, transform the association's market, and acquire new inventions. According to Ivor Jonathan Farrell's study from May 2003, aligning data innovation with organisational goals will benefit the association more. In order to achieve association goals, data innovation is a crucial component of the association.

Since consumers are interested, associations compete fiercely with one another. The association should be advanced with respect item to suit customer needs. Innovation, more often than not, is the source of advancement. Every organisation is now open to innovation because they understand that it will benefit their organisation and lead to destination satisfaction. Associations must employ cutting-edge and creative technologies if they want to stay in business. According to Gray (1986), the majority of associations cope with the necessary organising ineffectively. The 1980s were the time frame for this investigation. Dark found that traditional business negotiations were still commonplace in relationships. The problems he mentioned had to do with the appalling performance of the chiefs and staff, the formulation of the objectives, and the absence of connections between the most important plans and other control frameworks. These drawbacks will never motivate fairness in any way. All employees need to work well together and have a strong connection to the strategy methodology and control structure in order to achieve the goals [2].

Although many organisations attempted to use these advanced technologies at previous phases and to varying degrees, as we approach an unprecedented situation, the desire to use these technologies to provide services to clients in novel ways is becoming increasingly strong. As stated by Osmond Vitez (September 2017) New products or devices that are

anticipated to become widely used in the next five to ten years are developed in the field of emerging technologies. Organizations frequently look for emerging innovations for new services or devices that will help them gain a significant competitive advantage. Emerging technology may also consist of improvements that the firm is already using. These developments frequently enable firms to enhance company operations for less money. According to Pant and Hsu (1999); Reich and Benbasat (1996), the destinations must be clear and concise in order to adapt IT to corporate goals. It must include every component of the organisation; otherwise, adapting data innovation to them would be challenging.

The organization's goals should be clear enough that innovation may be aligned with them, enabling the latter to easily reach their objectives. IT strongly supports the successful implementation of such business goals. On December 23, 2011, Maryam Mousavi, Napsiah Ismail, and Faieza Abdul Aziz conducted research in which they adopted an organising and examining portion where they attempted to ascertain whether or not the current development innovation is adequate. They also shown that for new innovations to be accepted by associations.

Additionally, A post-COVID business is described by Alexey Chalimov in 2020 in his blog, claiming that in just 8 weeks, they experienced an unheard-of increase in the use of modern innovations like AI, IoT, and Big Data, and Blockchain. In fact, the economy would have needed five more years to reach our current level of creative reception. The financial industry has emerged as a global leader in cutting-edge client services, and supermarkets have quickly followed suit by introducing online shopping and delivery. During the lockout, adoption rates for telemedicine and e-learning have reached record highs, and manufacturers have started to announce long-delayed plans for full robotization and advanced change. In an effort to adapt to the erratic and unpredictable environment, the majority of firms have relocated to faraway work and increased their nimbleness. It is clear that IT teams have been completing information analysis and AI tasks at a breakneck pace. However, a significant amount of these adjustments was a response to the behaviour of hanging shoppers. Customers are altering their long-established tendencies due to one of the most basic human emotions, dread of vulnerability [3-5].

A. Key highlights

The impact of new technologies that may aid in business recovery is the main topic of this essay. the highlights that are listed below;

a. describing the desire to use emerging technology in the wake of COVID
b. impact of Big Data, IoT, AI, and Blockchain technologies
c. foreseeable difficulties

Paper organisation: The remainder of the section is as follows because we have already seen some studies on the importance of these developing technologies in the post-COVID world.; Following Section 3 and its sections on how various cutting-edge technologies, such as AI, Big Data, and Blockchain, are affecting society, and IoT in business today, Section 4 offers a case study of the problem at hand and its remedies utilising the cutting-edge technology. The consumer behaviour that is moving toward digital technology in Section 2 and its subsections, as well as some usage data for the internet, are shown. Finally, Sections 5 and 6 discuss the Conclusion and potential issues in the future, respectively.

II. Consumer behavior towards to digital technology

Aneesh Reddy's paper claims that from 2020, which explains in great detail how consumer behaviour is shifting toward the use of digital technology after COVID. The epidemic has had a profound impact on all facets of our lives—including our jobs and daily routines—have changed, and most people have begun to pursue "work from home" opportunities rather than leaving the house and sticking to the fundamentals. A trinity of cell phone penetration, less expensive 4G networks, and rising consumer wealth was predicted to boost the Indian online business industry to US$ 200 billion by 2026. In a world before COVID 19, that projection was based on client and statistical surveying. However, in over the most recent crisis months, both the market environment and consumer behaviour have changed to the point where they are no longer recognisable, and there are clear indications that the online commerce market will have a $200 billion impactmuch sooner. According to an assessment by NRF, some of the most important consumer behaviour changes;

A. Nine out of ten buyers have altered their typical buying habits.
B. More than half of consumers have ordered products it would often purchase ordinarily purchase in-person.
C. Six out of ten customers claim to be anxious about visiting the business because they fear getting sick.

While some of these developments will undoubtedly be temporary, others will last forever. Most likely, the advanced receiving force will send advance and become permanent when the local region advances through the endurance mode. This talking point will be principally driven by two significant changes in consumer behaviour: the unwillingness to blend in during busy public spaces and the increased preference for computerised selection. Customers are likely to choose online even after the flare-up is over, especially for categories like products and personal concern projects, according to the new Mckinsey focus in China. According to an eMarketer analysis, between 60% and to lower their chance of catching the disease, 85% of internet users in China and South-east Asia have avoided crowded public spaces. Although this will undoubtedly result in a disconnect, I don't think things will go back to the way they were with crowds of people swarming the block and dead shopping malls. Simply expressed, 2020–2021 will be a turning point in the acceptance of online trade and portable trading due to the Covid–19 event platforms.

A. Merits and demerits of technology

People are receiving assistance from technology in every aspect. It has simplified our lives. An outcome of advanced invention, people make fewer mistakes. Additionally, it is saving us time. It has brought people together; we can now quickly and effectively share data via telephones, the internet, fax machines, and other devices. Innovation is a crucial component of the car industry; without it, they cannot achieve their objectives. The foundation of vehicle organisation is advanced innovation. They receive development vehicles and increase effectiveness as a result of advance innovation. Innovation acquires modify innovation in a similar way to computer-generated experiences [4].

The main drawback of innovation is that businesses who purchase equipment to increase their accuracy actually end up with painful results for their workers. The workers are fired from their jobs. The downside of advanced invention is how confusing and bewildering technologies may be. Anyone who wants to accomplish anything needs to be aware of and knowledgeable about the invention. Every association is keen to adopt cutting-edge innovation, yet some organisations lack mindfulness.

Because of this, they improperly operate the machines. Another maintenance problem appears.

B. Internet usage statistics

More than 80% (81%) of the existing online users used the internet every day in 2017, an increase of two rate points from 2020. Most web users (96 percent) in the 16 to 29 age group accessed the internet daily. Additionally, 95% of adults aged 30 to 44 use the internet daily. About six out of ten (59%) adults aged 60 to 74 used the internet daily, compared to roughly three out of ten (28%) older adults aged 75 and more who used the internet daily or frequently.

The percentage of men and women who regularly use the internet is similar, with 79 percent of men and 83 percent of women. Almost everyone (97%) College students

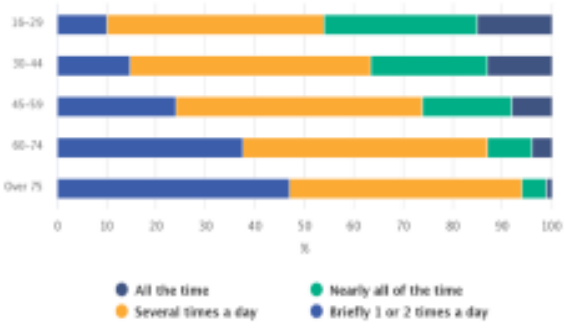

Figure 2.2 CSO statistics over internet usage in 2020

daily use the internet, compared to only 53% of persons whose primary financial situation was home duties. Almost eight out of ten (78 percent) retirees regularly use the internet. Figure 2.2 depicts the Central Statistics Office's findings on web usage (CSO). Nearly half (48%) of daily web users whose primary source of income was their job used the internet several times per day, followed by almost one-quarter (23%) who used it very continuously, and 12% who used it constantly.

3. Impact of emerging technologies in reviving companies after post covid

In this section discusses a variety of cutting-edge technologies that businesses are pushing in the behaviour of consumers in the post-COVID period shifts to internet platforms and businesses look for new ways to reach customers.

A. Impact of big data in reviving companies

Big Data is becoming their most incredible asset set to own and use, according to "Inside Big Data," which laments the fact that the internet is today the largest market place for businesses worldwide.

Almost all websites and applications monitor user browsing patterns in order to log and later analyse user requirements and choices. The invention of big data includes not only acquiring information but also comprehending and deconstructing it to create client personal behaviour guidelines. Just then, it might very easily be turned into something useful for businesses. Large information application developments are getting ready to generate the next generation of statistical analysis, scenario planning, and product creation and improvement, client acquisition, and marketing tools. As a result, the majority of businesses are keeping an eye out for ways to employ "big information" technology in newer, more creative ways [5–8].

Cellphones and the Geo Sync method development of a new element of information that includes carefully but also practically following customer developments has been made possible by with their region and geo-labelling, the more current portable application development structures features, sparking the start of new business activities in that area. This knowledge can make deciding client norms of conduct even more difficult and complicated. For instance, area information is now used by platforms like Google Maps, travel websites and apps, and even retail platforms to provide updated content to users [4-5].

Big Data and chatbots have a mutually beneficial relationship in which each supports the other and vice versa. Currently, the increasingly vast amounts of data generated by bots are being utilised to investigate human mentalities as well. The concept is employed to create structures for "sentimental analysis," the act or practise of attempting determine a person's intense reaction to something through text. Bots get better at analysing data as they collect more information and are able to differentiate various viewpoints, which increases their own intelligence. By cooperating in this way, they strengthen one another's efforts to build a long chain of collaborative advancements that, when paired with Typically, new client-driven technologies will be discovered and developed using AI and ML frameworks for the future. Big Data is simply the management of unstructured data with data sizes greater than terabytes and petabytes. By 2025, it is

anticipated that the total amount of information in the world will surpass 175 Zettabytes as diverse programmes, interpersonal organisations, needs for web searches, instant chat, and media files, among others, are constantly outpacing information ages.

B. Impact of AI

Diego Pineda illustrates many ways in which we might advance our corporate strategy in this post-COVID era in this article.

1) Identifying patterns in the data being fed Machine learning is a subset of AI that can carry out the monotonous and repetitive operations that occur in a business. To more precisely analyse enormous amounts of data and forecast future patterns from them, which will show the company's future course. Additionally, ML automation is now helping HR departments with representative enlistment by automating tasks like evaluating resumes, locating applicants, and scheduling interviews. Simulated intelligence will enhance hiring and enrollment by utilising a tonne of data huge match a candidate's experience and saving a tonne of time, knowledge, and skills to the requirements of the job. Additionally, chatbots will interact with the emerging artists as part of the screening process, analysing their reactions and surprise outer based on their outward features to assess if they are a suitable fit for company.

2) CRM: It is a laborious operation for a person to maintain this customer relationship management up to date application. AI can make the process easier by automatically updating and correcting the system, which allows it to predict future markets.

3) *Chatbots:* AI's sentimental analysis approach helps to make customer interactions easier and more beneficial by classifying various tickets as "positive," "negative," or "neutral." In fact, customers report being generally satisfied with their shopping trip while using a live chat feature (92%) as opposed to phone (88%), email (85%), and, surprisingly, web-based media reporting (Facebook, 84%) and Twitter, (77%).

4) Security: In any case, human error is to blame for the majority of breaches in online security. Along similar lines, AI can increase the security of our PCs and businesses by filtering out viruses, spam, and phishing emails before a person even views them. ML that has already looked into our client's behaviour can surely tell who is a client and who is not, preventing or responding to cyberattacks in a gradual manner.

C. Impact of blockchain

A centre position is not necessary when dealing with ordered data thanks to blockchain innovation. A blockchain functions as a distributed database with an ever-growing number of records. Since the data set keeps record in chunks rather than putting them all together in one place report, it may present further business chances space [6-10].

1) Transparency: Prior to this, not much has happened of honesty and decency in business, which has several benefits of mysterious or perhaps perplexing events to occur. Fortunately, blockchain technology is making all exchange accounts very simpler. Every communication is visible to everyone, but they cannot be modified or improved without the approval of the entire organisation and the implementation of the changes. This tool reduces the possibility of improbable events occurring and prohibits anyone from "fudging" data or lying about agreements, clients, volume, or everything in between.

2) Reduction in cost: working in, cutting costs in whatever way one can is essential. Unfortunately, there are always a variety of products stuff you must purchase, which might make saving money a difficult task. Blockchain, thankfully, will help many businesses save a tonne of money. Usually, when agreements are reached or communications are transmitted, third parties or agents are required to make sure everything is legal, fair, and square. Because the blockchain will provide easy access to all exchange records, you do not need to "trust" the person you are working with while using blockchain technology. This means businesses can spend less money on these outside services to negotiate deals.

D. Impact of IoT

the number of linked devices has increased from one for every person now to, say, ten for everyone in the future, will create a lot of new opportunities for startups and shape the IOT ecosystem. New products, services, and revenue models will develop as the business potential of the IOT area is realised, luring investments and creating jobs in the IOT space. Additionally, this can increase imports or prices for these goods and services, which might boost economies (much like how IT services have benefited India). Assembling smart and related devices, frameworks for watching and estimating, frameworks for choice control and investigation, and security measures to guarantee secure use and address security concerns with regard to IOT use are a few examples of subordinate or supporting enterprises that could be developed as a result. However, employing these raises security concerns, this can be resolved by combining it with other innovative technologies such as Big Data and Blockchain for IoT security.

IV. Challenges

These technological advancements all encounter certain typical challenges. For instance, a significant amount of data is needed for AI research, which depends on knowledge, reasoning, planning, representation, learning, insight, and enormous datasets for model development and testing. Extreme situations, such as model disappointment, are brought on by errors in any strategies. AI also includes a few strategies for dealing with the complex goal of critical thinking. These methods include computations that show off your computational prowess, measurably effective methods, and traditional representational AI. To show the framework how to respond to particular situations, neural networks are improved and dependent on a dataset [9]. Blockchain technology has certain issues in addition that stem from its

adaptability to interoperability, and restriction to normalisation Blockchain designer supply and its increased PoW set of excessively strict rules. Gathering, capturing, storing, safeguarding, evaluating, transferring, and the source of information are significant information in large difficulties. Huge information is driven by three concepts: variety, volume, and speed. The main goal and test in big data innovation is undoubtedly information analysis. The main concern of businesses utilising IoT is information security.

Information security is a top priority, along with guidance on how to avoid cyberattacks that can compromise sensitive data. Digital programmers have the ability to reject the powerless information that is being transmitted.

ML	**Machine Learning**
DL	**Deep Learning**
AI	**Artificial Intelligence**
IoT	**Internet of Things**
DT	**Digital Technology**
CBA	**Customer Behaviour Analysis**
SA	**Sentimental Analysis**
CRM	**Customer Relationship Manager**
PoW	**Proof of Work**

Table 4.1. List of abbreviation.

V. Conclusion

This paper highlights the enormous impact of emerging technologies like artificial intelligence (AI), as consumer behaviour shifts toward the digital world and with the use of these, we can easily analyse every single customer's emotion and bring about a new and innovative way to provide customers with services. Blockchain, IoT, and Big Data in the Post-COVID Era. Our research also discusses a hypothetical case study in which a prospective issue could be resolved utilising these cutting-edge technologies, before illustrating potential future difficulties that might arise.

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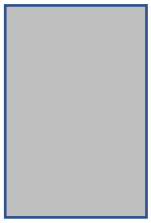
Author Biographies



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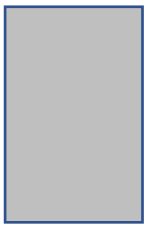

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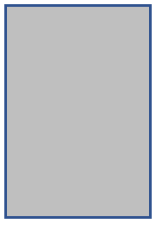

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